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Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 2.106 of the	)	ET Docket No. 95-18
Commission's Rules to Allocate	)	
Spectrum at 2 GHz for Use	)	
by the Mobile-Satellite Service	)	

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OFFICE OF THE SECRETARY

To: The Commission

JOINT COMMENTS OF COSMOS BROADCASTING, CORPORATION, COX BROADCASTING, INC., MEDIA GENERAL INC., and RADIO-TELEVISION NEWS DIRECTORS ASSOCIATION

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Dated: February 3, 1999

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TABLE OF CONTENTS

Summary

The Commission's proposed reduction in BAS channel bandwidth is not in the public interest. Broadcasters use BAS channels to provide live coverage of local news and special events, but the profoundly reduced channel bandwidth would significantly harm broadcasters' ability to continue offering one of their most important services. Suggestions that new but untested digital technology could resolve serious interference and range problems caused by the reduced channel bandwidth are speculative, especially in light of already acknowledged digital "cliff effect" and processing latency issues. Because viewers rely upon live, local event coverage, and because that service would be jeopardized by the reduced BAS bandwidth, the Commission should retain the initially proposed BAS spectrum allocation of 2025-2110 MHz and identify other spectrum for auction.

If the Commission proceeds with its proposed BAS bandwidth reduction, a phased-in transition would be necessary to allow broadcasters to maintain their capability to provide live coverage of important community events. This would permit BAS licensees to gain experience with maturing technologies and reequip thousands of news trucks, receive sites, and numerous broadcast studios while attempting to continue serving communities in the manner viewers expect. A transition on a date certain unnecessarily would raise transition and reimbursement costs. Accordingly, BAS licensees should be allowed several years to implement this massive transformation.

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To: The Commission

JOINT COMMENTS OF COSMOS BROADCASTING CORPORATION, COX BROADCASTING, INC., MEDIA GENERAL, INC. and RADIO-TELEVISION NEWS DIRECTORS ASSOCIATION

Cosmos Broadcasting Corporation ("Cosmos"), Cox Broadcasting, Inc. ("Cox"), Media General, Inc. ("Media General"), each owners of several broadcast television stations[1/] and The Radio-Television News Directors Association ("RTNDA"), the world's largest professional organization devoted exclusively to electronic journalism[2/] (collectively, the Joint Commenters"), hereby respond to the Commission's invitation for comment pursuant to *Memorandum Opinion and Order and Third Notice of Proposed Rule Making and Order* (Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service), ET Docket No. 95-18, FCC 98-309 (rel. Nov. 27, 1998) ("*Third Notice*"). Pursuant to the 1997 Balanced Budget Act,[3/] the Commission has proposed to reduce further the Broadcast Auxiliary Service ("BAS") allocations made earlier in this proceeding from the 2025-2130 MHz

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1/ *See* Attachment.

2/ RTNDA represents local and network news executives, educators, students and others in the radio, television and cable news businesses in over thirty countries.

3/ 1997 Balanced Budget Act, Pub. L. No. 105-33 111 Stat. 251 §3002(c) (1997).

band to the 2025-2110 MHz band, absent a determination that the public interest requires retention of the allocation. For the reasons set forth below, the further reduction of the BAS allocation will hamper the ability of television broadcasters to provide live coverage of local news events and will degrade the quality of local news and information programming made available to the public. The Joint Commenters, who depend upon BAS channels on a daily basis to provide timely coverage of important news, public affairs and special events to the local community, urge the Commission to refrain from again reducing the spectrum available for this vital local service.

I. THE 20 MHZ REDUCTION IN BAS SPECTRUM DOES NOT SERVE THE PUBLIC INTEREST.

The Commission's proposed thirty percent reduction in BAS spectrum would slash the bandwidth available for what is one of broadcasters' most important responsibilities: providing local news coverage to local viewers. Local television stations depend upon BAS channels to provide viewers with local news and events. Local electronic news gathering ("ENG") mobile units use BAS channels to transmit television signals from fixed and mobile locations to studios. Broadcasters use BAS channels every day to provide live coverage of a variety of important community matters such as politics, sports, weather, and human interest stories. Both local broadcasters and out-of-town broadcasters particularly rely upon BAS channels to cover election returns, political conventions, and political victory parties. Broadcasters use BAS to alert viewers of floods and hurricanes, to entertain viewers with local parades, and to inform viewers of politicians' press conferences. Viewers expect local stations to provide them with live coverage of important events and have come to rely upon this service.

It is this ability to provide live, visual coverage of local news and events that distinguishes local television from any other service provider. The proposed reduction in BAS channel bandwidth to 12 MHz drastically will change this unique service local broadcasters offer their communities. The BAS band plays a vital role in keeping communities aware of local news and events — every day of every week of the year. Accordingly, the Commission should make the determination that the proposed reallocation of 2110-2130 MHz is not in the public interest, especially in light of the previously proposed BAS spectrum reduction.

Local broadcasters now coordinate the use of the seven BAS channels so each station typically can use two channels for back-to-back live shots and simultaneous live shots from two locations for major news events. A local frequency coordinator in each community coordinates the use of the seven channels by what typically are four to seven local television stations. The use of two channels at a time is essential for local news coverage and, even with the present band, requires very complex coordination on a daily basis. In some instances, special equipment is necessary to use off-set frequencies to minimize interference when users attempt to share a channel.

To serve the public, broadcast news departments must have spectrum available to respond rapidly to breaking events. There is little time to engage in the field surveys, path studies, and frequency coordination that reduced channel bandwidth would require — the event would be over before the local television coverage could commence. Less channel bandwidth also means that the ENG transmission range would be reduced, forcing broadcasters to constrict their news coverage areas. Because current BAS equipment permits coverage approximately within a station's Grade B contour, a reduction in transmission range necessarily would prevent stations

from serving the communities within their Grade B coverage areas. Additionally, smaller channel bandwidth increases the likelihood of adjacent-channel interference, which would increase coordination difficulties for an already complex coordination process. Both transmitter output and receiver input specification/performance will have to be improved to overcome these new technical limits, a problem exacerbated by the magnitude of the proposed channel bandwidth reduction (*i.e.*, twenty percent). Such a significant reduction represents an enormous transformation necessitating equipment changes for thousands of tower antennas, satellite trucks, news vans, and numerous broadcast studios. In adopting the proposal, the Commission would sacrifice broadcasters' ability to serve the public for speculative financial gains in an auction.

Alternative frequencies are no answer. Broadcasters have considered alternative spectrum for over twenty years but experience has proven that the 2 GHz band is unique in its capability to allow crews to originate local coverage from very poor locations with broadcast quality signals. For example, frequently broadcasters bounce BAS signals off buildings and still can obtain a robust link between the news site and the studio.

Because of the technical performance difficulties associated with the reduced channel bandwidth, the Commission inquires whether digital equipment would provide sufficient spectral efficiency to permit reducing BAS channel bandwidth to the proposed levels. It would be arbitrary and capricious, however, for the Commission to rely upon anticipated but unpredictable future technological changes to give up a broadcast capability that lies at the heart of broadcasters' local public service obligations. Untested future technology is *always* an option for resolving problems, but without testing and sufficient experience, the Commission has no means of determining whether future technology would in fact resolve the problem. Even presuming 2

GHz digital equipment were sufficiently mature, experience with the digital "cliff effect", digital processing latency, and modified bandwidth skirts must be acquired before any meaningful conclusions can be drawn about the comparative adequacy of digital technology at the narrower channel bandwidth. So troubling is the digital cliff effect that broadcasters very well may conclude that adjacent-channel interference at typically congested BAS receive sites renders digital's "all-or-nothing" pictures too unreliable for real world operations. The Commission should not adopt plans that rely upon anticipated — but uncertain and untested — technological advances.

The Commission's suggestion that broadcasters could bid for spectrum in the reallocated band to sustain their current BAS operations is not realistic.[4/] The nature of BAS use is that local broadcasters share the available channels under the direction of a local frequency coordinator. If local broadcasters are required to organize community bidding ventures, they would have to overcome precisely the sorts of collective action problems that prompted the unique BAS sharing arrangements and frequency coordination in the first place. As recognized in accommodating public safety operators, it is inefficient not to account for collective action problems in spectrum auctioning when important public services are at interest. It is quite possible the public would value the BAS spectrum service more highly than a single prospective MSS licensee; yet local broadcasters would not succeed in such an auction because of inefficient organizational costs. The notion that local broadcasters could gain assignment of the reallocated spectrum by out-bidding well-capitalized MSS operators is fanciful.

4/ *Third Notice* at ¶30.

Although slashing the BAS spectrum to 85 MHz plainly is not in the public interest, to prevent this reallocation the Commission also must conclude that any other spectrum, if auctioned, would generate greater receipts.[5/] Here, Congress directed the Commission to inquire into the value of unauctioned spectrum, but the Commission does not appear to invite comment on this point nor does the Commission indicate in the *Third Notice* that it has engaged in any such analysis. Although the Joint Commenters are not privy to information concerning the value of the array of spectrum potentially available for auction, this does not permit the Commission to draw facile conclusions regarding spectrum value — especially when the issue of an informed citizenry lies in the balance. In determining whether receipts would be greater in another spectrum band, the Commission should consider that the reimbursement costs of relocating incumbent licensees, which, as shown below, would be substantial for the BAS spectrum, would be reflected in reduced bid prices. Of course, if the Commission finds that reallocating the 2110-2130 MHz band to MSS is not in the public interest, displaced Fixed Services ("FS") microwave licensees still must be accommodated to preserve the seven full performing BAS channels with minimal modification, though the reimbursement costs would be far less.[6/]

The Joint Commenters urge the Commission not to allocate the 2110-2130 MHz band for auction. BAS operations would be disrupted in ways that, at this stage, cannot even be predicted. BAS puts the local in localism. The public interest surely requires that alternate spectrum be allocated to MSS. In this way, the Commission will prevent disenfranchising literally millions of

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5/ 1997 Balanced Budget Act, §3002(c)(3)(B).

6/ MSS licensees still would be responsible for the reimbursements because it is on their behalf that the BAS band is being shifted.

viewers that rely on live, local television station coverage for the benefit of a handful of satellite telephone users.

II. IF THE COMMISSION CHOOSES TO REDUCE BAS CHANNEL BANDWIDTH, A PHASED-IN TRANSITION OF SEVERAL YEARS IS NECESSARY TO PROTECT ANY HOPE OF BROADCASTERS PROVIDING EVENT COVERAGE.

If the Commission nevertheless proceeds with its proposal to reallocate and rechannelize the BAS spectrum, a carefully staged transition is essential to preserving local news coverage capabilities. As previously discussed, the proposed twenty percent reduction in channel bandwidth would necessitate a tremendous transformation in BAS operation. Accordingly, an adequate transition period of between 48 and 72 months would be required. The Commission's proposed simultaneous retuning or replacement of all BAS equipment nationwide on a date certain is not even remotely practicable.[7/] Local news occurs every minute of the day. There is no time to make the already extensive modifications in a manner permitting an instantaneous switch between systems. The Joint Commenters believe the magnitude of the channel bandwidth reduction renders current equipment obsolete and thus would require extensive equipment replacement. Equipment modifications for reduced bandwidth would not be allowed under a date certain mandate given the down-time due to shipment to factory and re-installation. It is not possible for tower crews, backlogged by over a year as a result of the DTV implementation, to

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[7/] *Third Notice* at ¶39. Though the Commission does not suggest it, one potential date certain would be January 1, 2000 — the date new worldwide MSS allocations take effect. *Id.* at ¶5. Although a switch on any date certain is not practicable, the Joint Commenters respectfully suggest that requiring BAS operators to switch to a new system on the first day of facing Y2K problems is not prudent.

reequip some 1500 receive sites in time to permit a nationwide switch to new BAS channel bandwidth. Furthermore, the capacity of the limited number of BAS equipment manufactures is not adequate to reequip all of the broadcast studios and news vehicles. A multi-year transition would not harm prospective MSS licensees because, despite their desire to begin expeditious use of the spectrum, there is little evidence to suggest that MSS operators yet are prepared to place their complex systems into immediate operation. Additionally, a multi-year transition would permit BAS operators to compare maturing technology, test both high-performance analog and digital equipment, and avoid locking into next year's obsolete technology. As previously discussed, it is not clear that BAS operators would embrace digital technology at this time given the problems with the cliff effect and processing latency. BAS operators would acquire much needed experience with novel digital issues under a multi-year transition.

Under this proposed transition period, the BAS band could be bifurcated — existing operations and channel width could remain on one-half of the band while the other half would be transitioned to the reduced channel bandwidth. A local coordinator would administer the details. While flexibility would be required in the early part of the transition to tolerate maturing technology and unanticipated problems, standardization could be enforced in the latter part at a level that would permit the universal mobility of equipment while retaining some local level flexibility.

The transition schedule should be established at least one year prior to any implementation. Although the phased-in transition would require less up-front capital outlay than the "no transition" approach, broadcasters still must have access to relocation compensation funds to order new equipment. Broadcasters should not be expected to receive compensation at

an unspecified later date but inevitably will need some custom-built equipment that will require substantial down-payment. Broadcasters should be required to submit their equipment needs to MSS licensees so that they can establish budgets.

III. OTHER TRANSITION ISSUES

A. The Transition Should Be Implemented on a Market-By-Market Basis.

As previously discussed, the needs and coordination efforts of BAS operators vary from community to community depending on an assortment of factors that includes: the number of local stations engaging in news coverage, the quantity of each station's news coverage, and the physical size and terrain of each community. The MSS demand for each market would also vary. Accordingly, the transition should be implemented on a market-by-market basis to account for the unique issues faced by each community. The Commission may wish to consider a market-by-market staged roll-out similar to that adopted for digital television (*i.e.*, larger markets with earlier transition deadlines). In this way, lessons learned in communities with earlier transitions could be shared with those having later deadlines. Alternatively, the transition could be implemented on a staged channel-by-channel basis as MSS systems are placed into operation. Valuable 2 GHz spectrum would not lie fallow while MSS licensees rolled out operations, and broadcasters would gain valuable experience using their new reduced bandwidth equipment while being afforded time to order and install the new equipment.[8/] In any event, a local coordination committee chaired by the local frequency coordinator could prepare an

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[8/] In addition, if MSS licensees surrendered their licenses during the transition period, broadcasters should be reinstated as licensees in the band to ensure spectrum is not lying fallow.

implementation plan for each community. This approach has proven successful in the past under similar circumstances. Because of the varying needs of each community, no single industry organization should coordinate the BAS transition.

B. Estimated Costs.

In response to the Commission's invitation for comments regarding reequipment cost estimates, the Joint Commenters surveyed manufacturers and obtained the below typical values:

	Analog	Digital
Live Truck	$15,000	$60,000
Receive Site	$15,000	$35,000

A typical station will have three live trucks and two receive sites, resulting in reequipment costs of $75,000 for high-performance analog and $250,000 for digital per television station. Of course, this represents only a baseline estimate of conversion. Many stations will have higher costs due to reequipping helicopters and traffic cameras. Larger market stations often have between six and twelve live trucks and four receive sites, doubling the above estimates. Also, these estimates do not reflect installation costs or other expenses, which are likely to be substantial.[2/] Some stations also would have to replace STL and TSL microwave dishes and transmission lines at an estimated cost of $150,000 per station.

[2/] The costs were estimated as follows. Analog radios can have factory FSK modifications for digital applications but performance will be limited. Digital-ready radios will cost 10-15% more ($13,000) plus will require digital encoders ($40,000) and modems ($7,000). Digital radios with selectable QPSK (STL's), 8 PSK (STL/TSL/DENG), or 16 QUAM (DENG) will cost 20% more ($20,000) and also will require a digital encoder ($40,000). Newer analog receivers can be modified for digital compatibility with excellent performance but would required modems and decoders ($10,000). High performance analog radios and receivers that, operating in a bandwidth of 12 MHz, could be available for $15,000. Digital receivers will cost 50% extra ($22,500) plus decoder ($7,000). Many receiving low noise amplifiers (LNAs) on towers will need to be replaced at a cost of $4,000.

C. The Commission Should Provide Simple Guidelines to Govern the Negotiation Period.

The Joint Commenters appreciate the Commission's reaffirmation that MSS licensees must compensate broadcasters for relocation of their vital BAS operations. Accordingly, the *ex parte* filing of the ICO USA Services Group suggesting that BAS operators not be fully reimbursed is inequitable and cannot be justified.[10/] BAS licensees must be reimbursed for any costs incurred in relocating BAS operations.

Due to the magnitude of the proposed reduction in channel bandwidth, the equipment costs of rechannelization borne by MSS licensees will be significant. For this reason, the Commission should consider abandoning any "voluntary" negotiation period. The Commission must provide guidelines regarding the spectrum, technology, and implementation. Flat rate compensation based upon equipment type and list price — plus the addition of a fixed percentage (*e.g.*, twenty-five percent) reflecting installation and miscellaneous costs — would provide needed simplicity for both negotiations and administrative review.

D. The Commission Should Consider Seven 14-MHz BAS Channels.

Instead of slashing BAS channel bandwidth to 12 MHz, the Commission could consider reducing channel bandwidth by 1 MHz, resulting in seven BAS channels of 14 MHz. Broadcasters could transition more easily to this size of channel bandwidth because adjacent-channel interference and transmission range problems would be less egregious. This also would lower reimbursement costs as some equipment could be retuned instead of replaced. Because

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[10/] *Third Notice* at ¶41.

such a rechannelization would be less disruptive to BAS operations, the public interest problems discussed previously would be reduced.

CONCLUSION

The Commission's proposal to reduce BAS channel bandwidth would have rash and unforeseen consequences on the ability of local television stations to provide communities with timely coverage of important news and events. These BAS operations put the local in localism. The public interest surely prohibits the proposed reallocation. The Joint Commenters urge the Commission to preserve timely local television news coverage and retain the initially proposed BAS spectrum allocation of 2025-2110 MHz. However, if the Commission determines otherwise, a phased-in transition is necessary to allow BAS operators to adjust to the

substantially reduced channel bandwidth while attempting to continue providing important news and event coverage to their communities.

Respectfully submitted,

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Dated: February 3, 1999

ATTACHMENT

Either directly or through subsidiaries, Cosmos, Cox and Media General own and operate television stations across the United States. Cosmos is the licensee of the following television stations: WIS-TV (Columbia, South Carolina), WSFA-TV (Montgomery, Alabama), WTOL-TV (Toledo, Ohio), KPLC-TV (Lake Charles, Louisiana), KAIT-TV (Jonesboro, Arkansas), WAVE-TV (Louisville, Kentucky), WFIE-TV (Evansville, Indiana), WLOX-TV (Biloxi, Mississippi), WALB-TV (Albany, Georgia), KGBT-TV (Harlingen, Texas) and WWAY-TV (Wilmington, North Carolina).

Cox, either directly or through subsidiaries, is the licensee of the following television stations:WSB-TV, Atlanta, Georgia, WFTV(TV), Orlando, Florida, WPXI(TV), Pittsburgh, Pennsylvania, WSOC-TV, Charlotte, North Carolina, KIRO-TV, Seattle, Washington, KFOX-TV, El Paso, Texas, KTVU(TV), Oakland, California, KRXI(TV), Reno, Nevada and WHIO-TV, Dayton, Ohio.

Media General, through subsidiaries, is the licensee of the following television stations: WNCT-TV (Greenville, North Carolina), WSLS-TV (Roanoke, Virginia), WJHL-TV (Johnson City, Tennessee), WDEF-TV (Chattanooga, Tennessee), WTVQ-TV (Lexington, Kentucky), KALB-TV (Alexandria, Louisiana), WCBD-TV (Charleston, South Carolina), WJWB(TV) (Jacksonville, Florida), WFLA-TV (Tampa, Florida), WSAV-TV (Savannah, Georgia), WJTV(TV) (Jackson, Mississippi) and WHLT(TV) (Hattiesburg, Mississippi).